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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,331	03/11/2005	Shigekazu Minechika	040361	1662

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KRATZ, QUINTOS & HANSON, LLP
1420 K Street, N.W.
Suite 400
WASHINGTON, DC 20005

EXAMINER	
CHU, KIM KWOK	

ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
04/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,331	MINECHIKA ET AL.	
	Examiner	Art Unit	
	KIM CHU	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Pre-Amendment filed on 7/22/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627 Claim Rejections - 35 USC § 112

1. the following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) in the amended Claim 1, line 15, the term "a linear velocity coefficient" is not defined in the claim. Applicant should state in the claim how the linear velocity coefficient is determined so that the claimed optimal linear velocity optimal reproduction laser power can be determined. For example, Applicant's Fig. 3 can be represented by a mathematical expression when stating the definition of the claimed "a linear velocity coefficient";

(b) in Claim 4, the terms "a lower limit reproduction laser power value" and "a lower limit reproducible reproduction laser power value" are not clear because their differences are not defined; and

(c) in Claim 5, the terms "an upper limit reproduction laser power value" and "an upper limit reproducible reproduction laser power value" are not clear because their differences are not defined.

3. The claims not specifically mentioned above are indefinite based upon their dependence on Claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. **§** 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1 and 4-8 are rejected under 35 U.S.C. **§** 102(e) as being anticipated by Yamazaki et al. (U.S. Patent 6,552,980).

Yamazaki teaches a disk apparatus having all of the elements and means as recited in claims 1 and 4-8. For example, Yamazaki teaches the following:

(a) with respect to Claim 1, the disk apparatus that performs information reproduction by irradiating a laser beam onto a disk recording medium 1 rotated in a CAV system (Figs. 3 and 8; column 8, lines 19-23), comprising: a determining means

16 and 19 (Fig. 1) for determining a reference reproduction (read) laser power value by subjecting the disk recording medium a test writing and a test reading at a first reference linear velocity (Figs. 3 and 9; steps S50 and S51), a specifying means (within the processor 16) for specifying (setting/obtaining) an optimal linear velocity coefficient on the basis of a current ambient temperature (obtained by temperature sensor 21) of the disk recording medium 1 and a linear velocity at a portion (such as zone 0) to which the laser beam is to be irradiated (Fig. 9; step 51; column 11, lines 62-66; column 7, lines 6-12) and a calculating means (in processor 16) for calculating an optimal reproduction laser power value (Fig.8) obtained by multiplying the reference reproduction laser power value (Fig. 9; start step before step S50) determined by the determining means 16 and 19 by the optimal linear velocity coefficient specified by the specifying means (linear approximation or quadratic approximation such as steps S54 and S55 in Fig. 9 has an approximation coefficient so that optimal laser power can be predicted), wherein, the specifying means specifies the optimal linear velocity coefficient by use of a first relational expression indicative of a relationship between the ambient temperature of the disk recording medium for a second reference linear velocity and a linear velocity coefficient (Fig. 9; steps

S54 or S55; temperature is obtained from the detector 21), and a second relational expression indicative of a relationship between the linear velocity coefficient and the linear velocity (Fig. 9; steps S54 or S55; each new velocity approximation requires an old velocity and an approximation coefficient).

(b) with respect to Claim 4, the reference reproduction laser power value (Figs. 8 and 9; laser power starts at a certain base value) is obtained by adding a predetermined ratio of a lower limit reproduction laser power value to a lower limit reproducible reproduction laser power value (Fig. 8).

(c) with respect to Claim 5, the reference reproduction laser power value (Figs. 8 and 9; the maximum laser power is limited at a certain value) is obtained by subtracting a predetermined ratio of an upper limit reproduction laser power value from an upper limit reproducible reproduction laser power value (Fig. 8; an upper boundary reference power is obtained).

(d) with respect to Claim 6, the first reference linear velocity is a linear velocity of an innermost periphery in a ZCAV system (Figs. 8 and 10; the magneto-optical system 10 is a ZCAV such as Applicant's).

(e) with respect to Claim 7, the first reference linear velocity is a linear velocity of an outermost periphery in the

ZCAV system (Figs. 9-11; the numbering of a reference linear velocity is arbitrary).

(f) with respect to Claim 8, the first relational expression is an expression for decreasing a value of the linear velocity coefficient as the ambient temperature increases (Fig. 9; steps S54 or S55; liner velocity should be decrease as ambient temperature increase so that the S/N ratio or the error rate of the data reproducing operation is under their limits).

Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okumura (6,674,701) is pertinent because Okumura teaches a read laser power control means.

Miyoshi (6,469,960) is pertinent because Miyoshi teaches a read laser power control means based on error rates.

Finkelstein (5,586,099) is pertinent because Finkelstein teaches a read laser power control means.

Matsumoto (5,467,337) is pertinent because Matsumoto teaches a read laser power control means.

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627

March 17, 2008
(571) 272-7585

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627